



Ovarian Cancer in Utah

Ovarian Cancer Dialogue for Action
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Outline

- Utah Cancer Registry and Cancer Reporting Rule
- Cancer Information
- Ovarian Cancer Coding
- Incidence & Mortality
- Staging Distributions
- Survival by Stage
- Trends in Physician Specialty (reported to UCR)
- Geographic trends
- Conclusions



Utah Cancer Registry

- 1948: Cancer became a reportable disease in Utah
- 1966: Began systematic statewide data collection
- 1973: Became a NCI/SEER Registry
- Cancer Reporting Rule R384-100
 - UCR state-designated reporting facility for the Utah Department of Health
 - Utah residents at the time of diagnosis, all malignant neoplasms (except for in situ cervical) and some benign/borderline conditions (benign brain, borderline ovarian).



Cancer Information

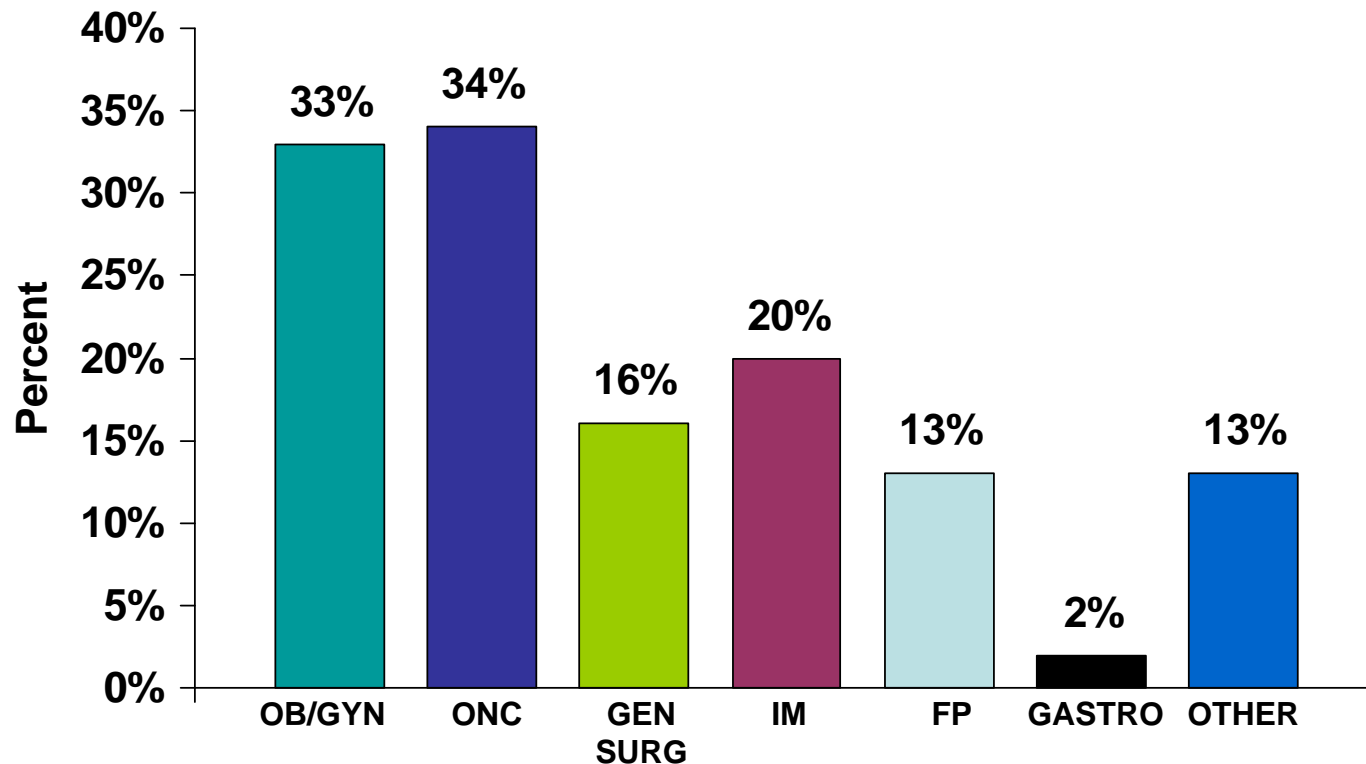
- Patient Characteristics
- Characteristics of the Neoplasm or Benign Tumor
- Cancer-Directed Therapy
- Health Care Providers (track specialty)
- Patient Vital Status/Follow-Up



Ovarian Cancer Coding

- Adopted ICD-O-3 for diagnosis beginning January 1, 2001.
- Site C56.9
- Histology
 - Changes from ICD-O-2 to ICD-O-3
 - Malignant to borderline behavior
 - N=197 Utah cases 1994-2004 no longer reportable
 - Analyses restricted to invasive disease

Physician Specialty (Reported to UCR)

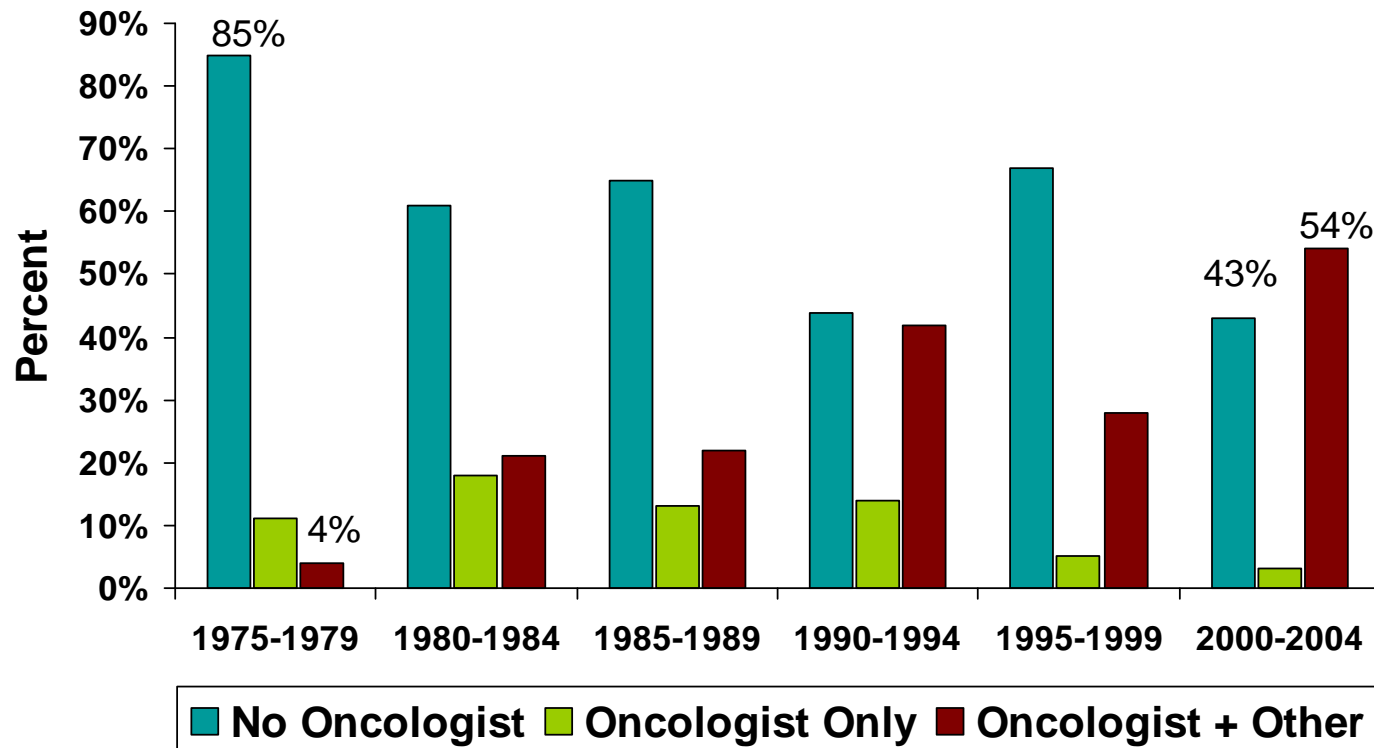


1973-2004 N=3,334

Categories are not mutually exclusive

Physician Specialty: 1975-2004

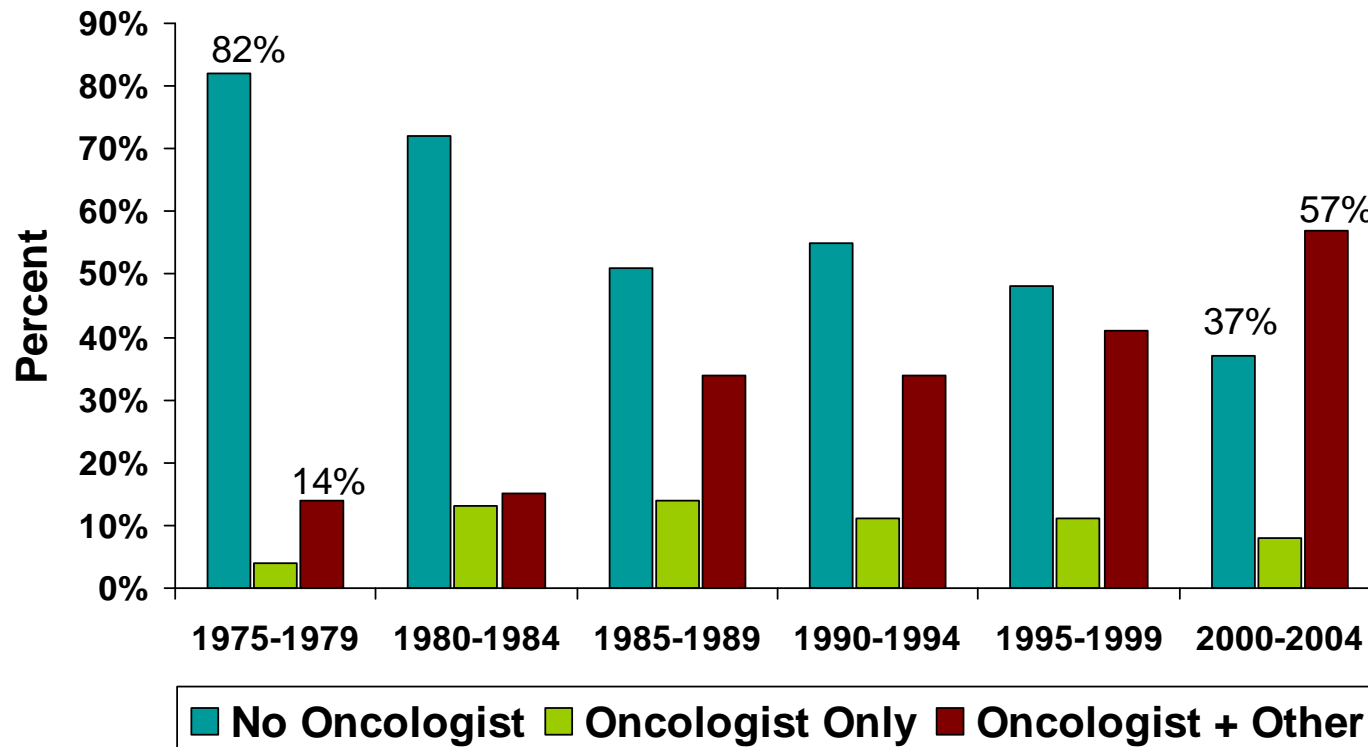
Ovarian Cancer Patients – No Surgery (Reported to UCR)



Chi-Square $p < 0.0001$ (10 df) (N=269)

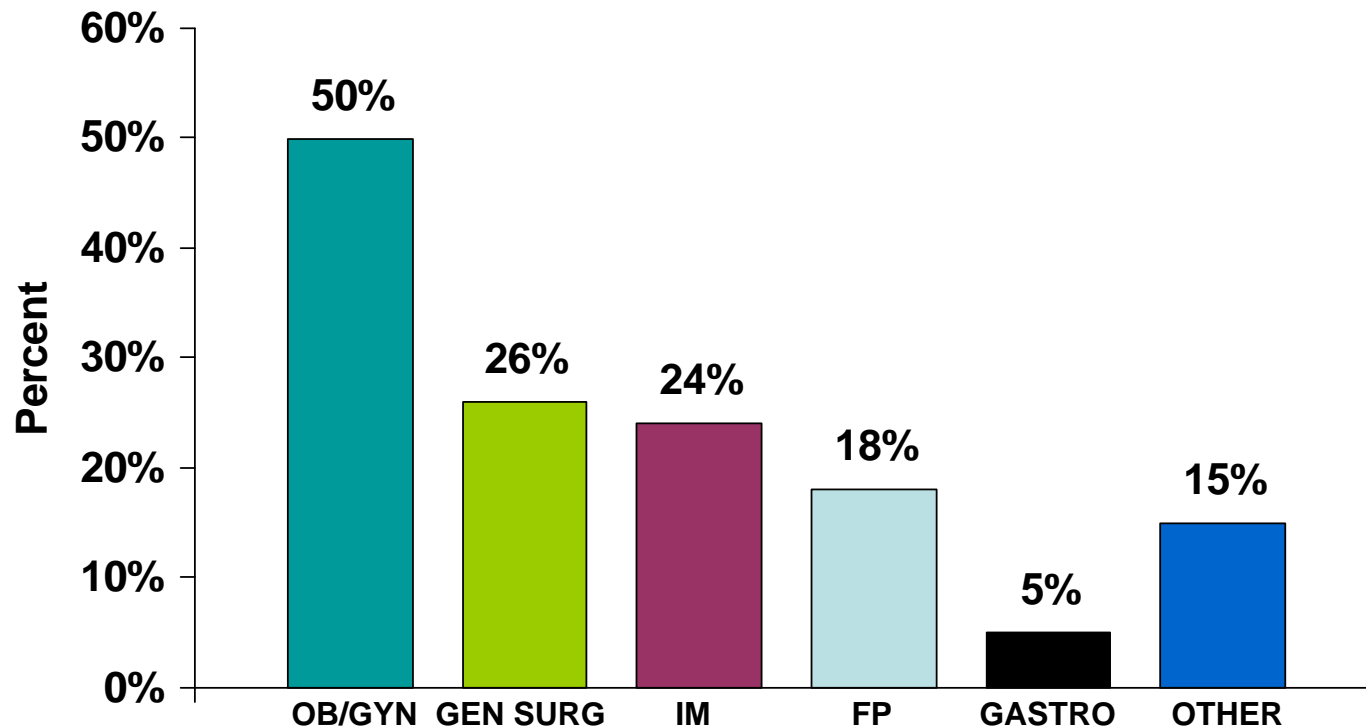
Physician Specialty: 1975-2004

Ovarian Cancer Patients – Had Surgery (Reported to UCR)



Chi-Square $p < 0.0001$ (10 df) (N=1,937)

Other MD Seen with Oncologist



INCIDENCE RANK

FEMALE GENITAL CANCERS:

1994-2004

Rank	Cancer Site/Type	Average Annual Count	Total Count	Average Annual Incidence Rate (per 100,000)
1	Corpus & Uterus	197	2,169	23.3
2	Ovary	115	1,265	13.3
3	Cervix	61	674	6.7
4	Vulva	15	170	1.8
5	Other Female Genital	6	61	0.6
6	Vaginal	4	44	0.5

Ranks 7th among all female cancers, after colorectal, lung, corpus/uterus, NHL, and cervix.

MORTALITY RANK

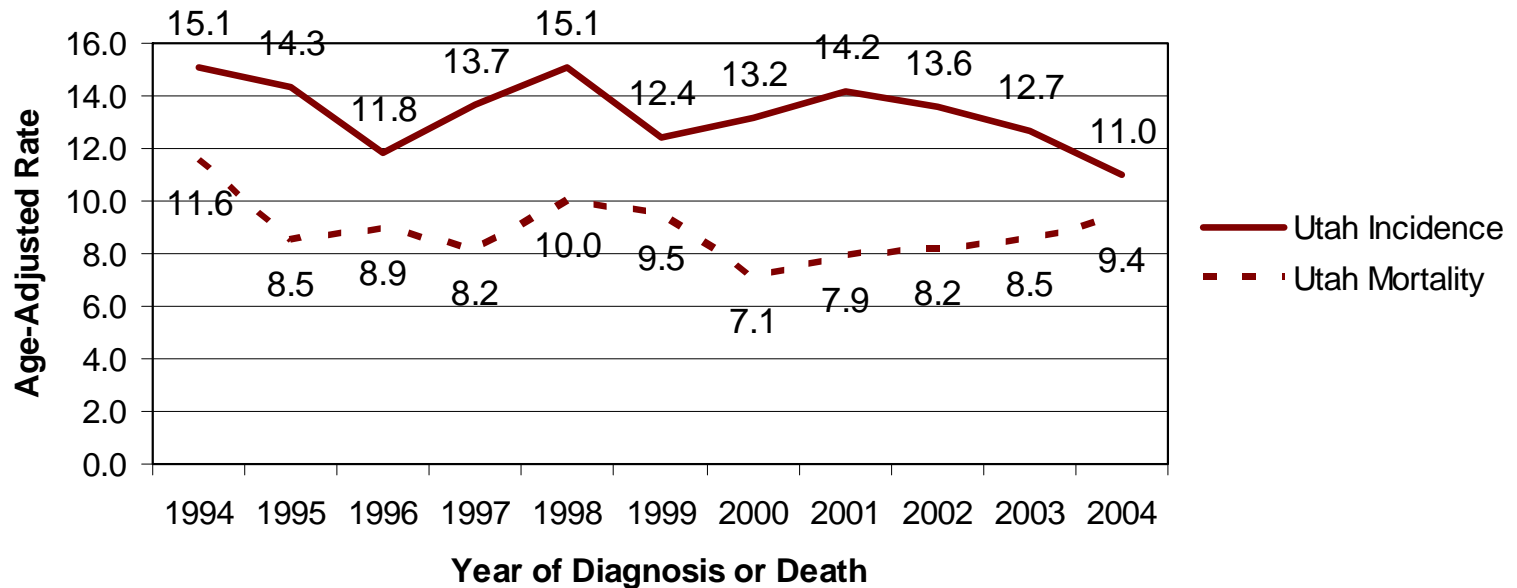
FEMALE GENITAL CANCERS:

1994-2004

Rank	Cancer Site/Type	Average Annual Count	Total Count	Average Annual Incidence Rate (per 100,000)
1	Ovary	75	825	8.9
2	Corpus & Uterus	34	379	4.1
3	Cervix	16	180	1.9
4	Vulva	3	29	0.3
5	Vaginal	1	14	0.1
6	Other Female Genital	1	12	0.1

Ranks 5th among all female cancers, after breast, lung, colorectal, and pancreas.

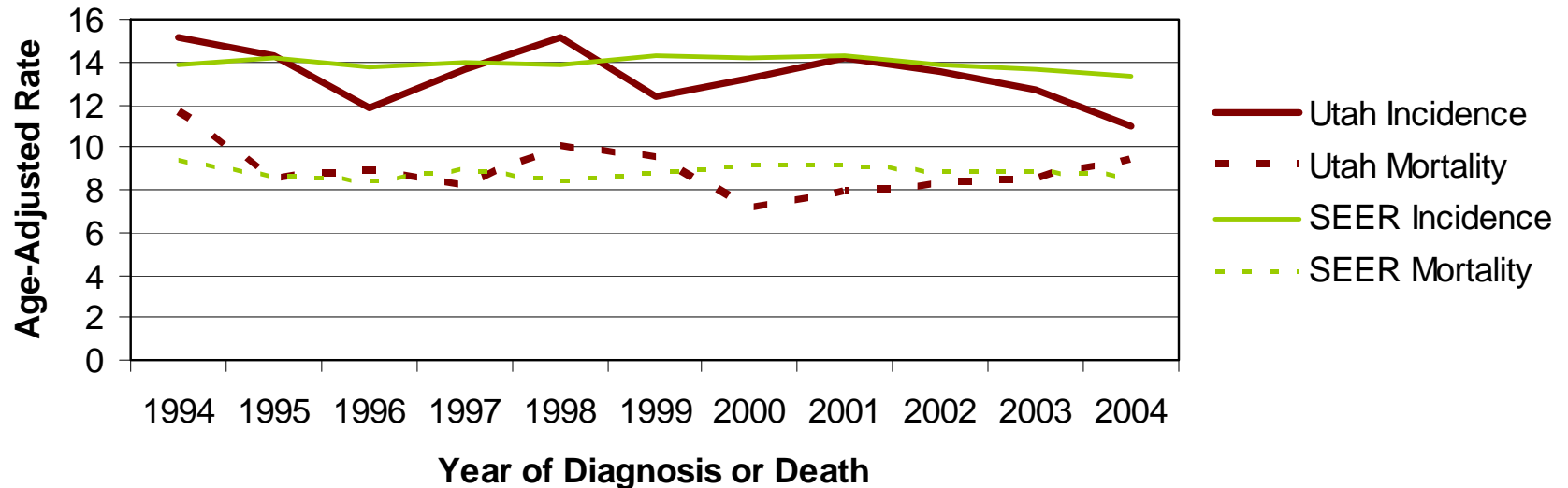
INCIDENCE & MORTALITY: 1994-2004



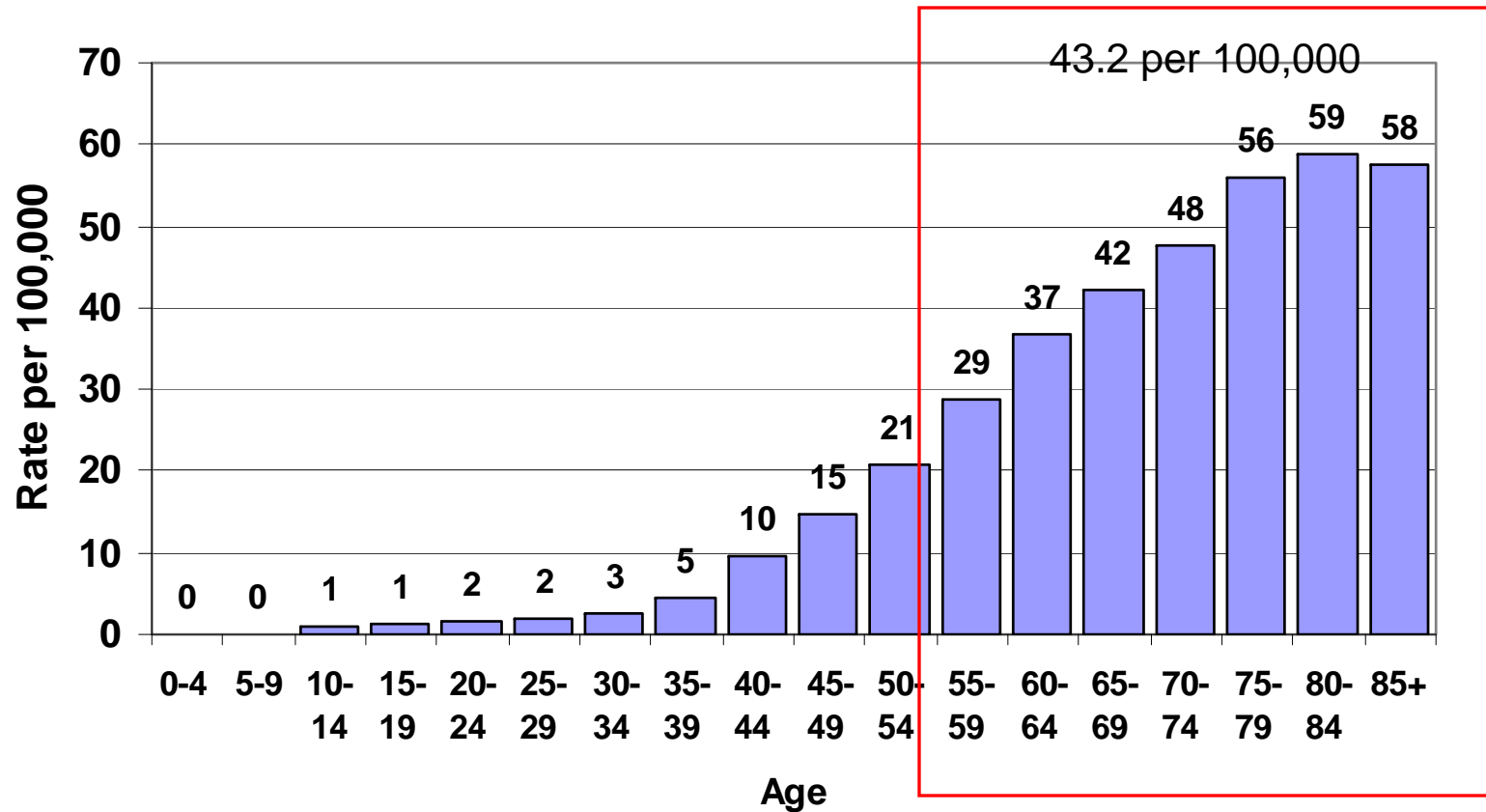
Incidence APC -1.6%
Mortality APC -1.6%

INCIDENCE & MORTALITY: 1994-2004

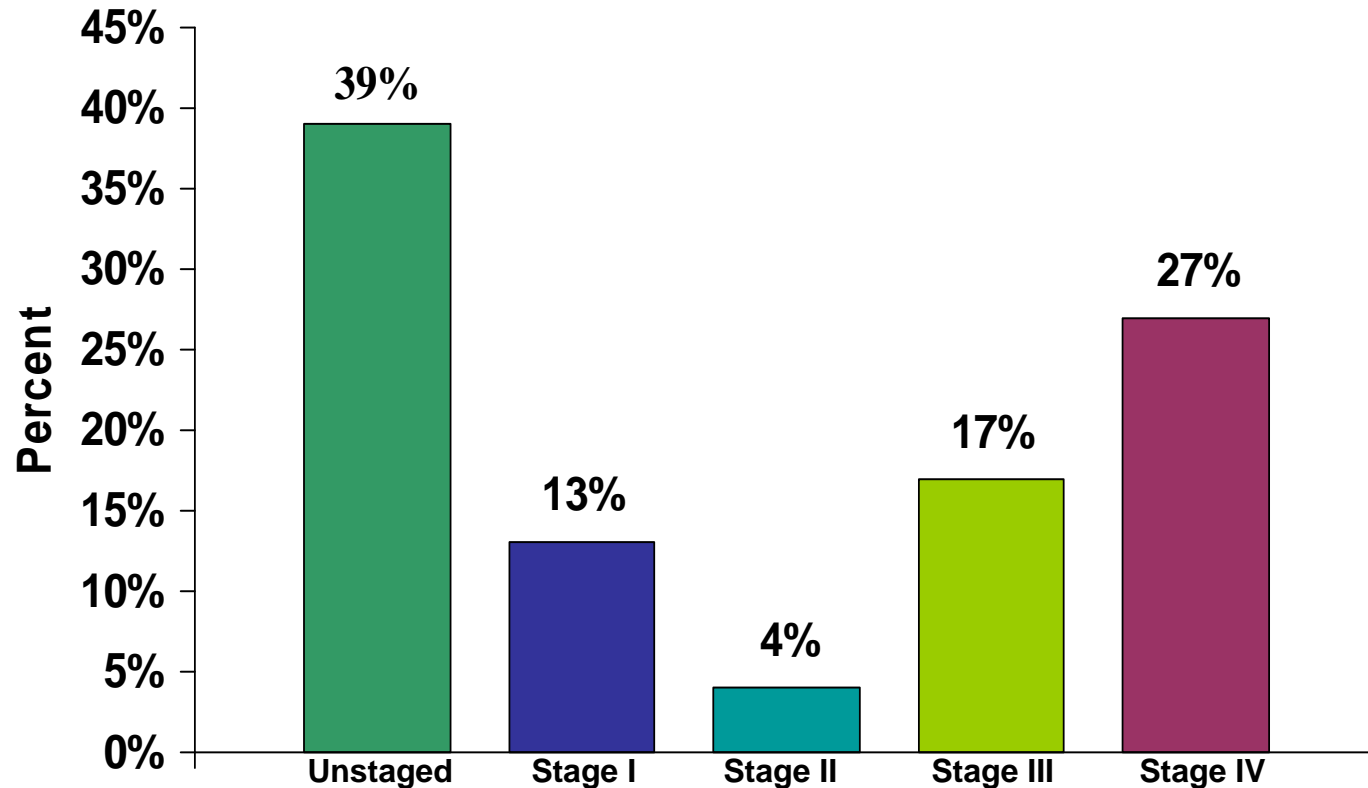
Utah Ovarian Cancer Incidence and Mortality



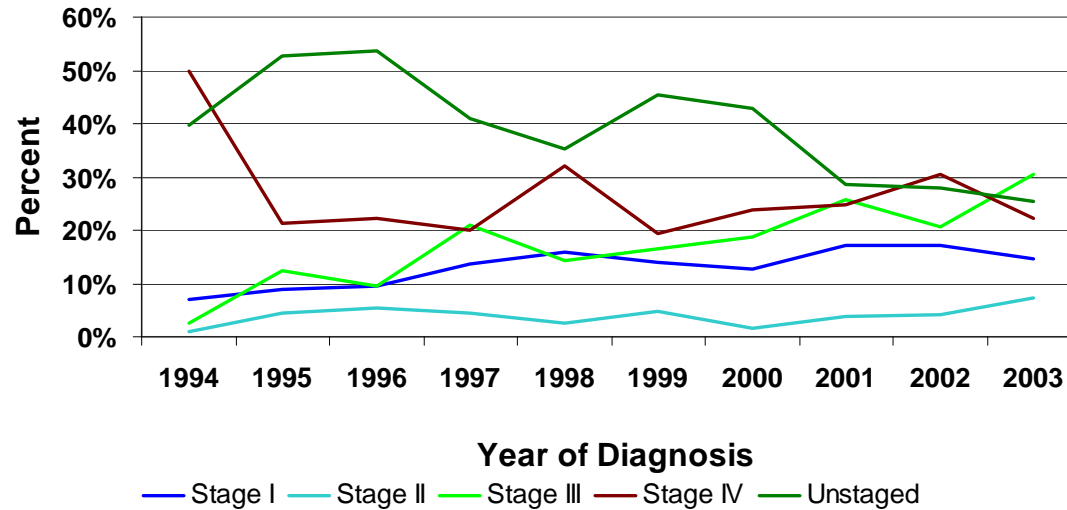
AGE-SPECIFIC RATES: 1994-2004



Stage Distribution: 1994-2003

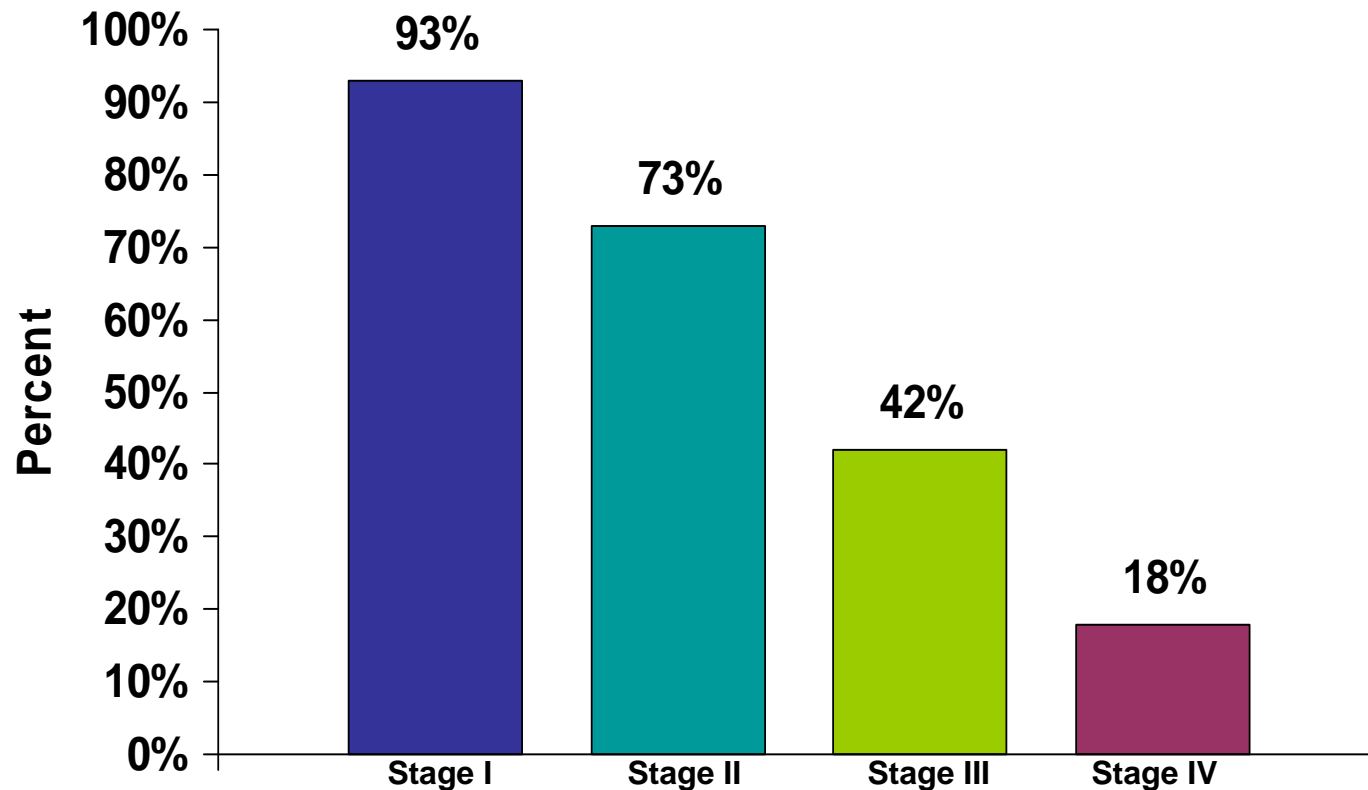


Stage Trends: 1994-2003

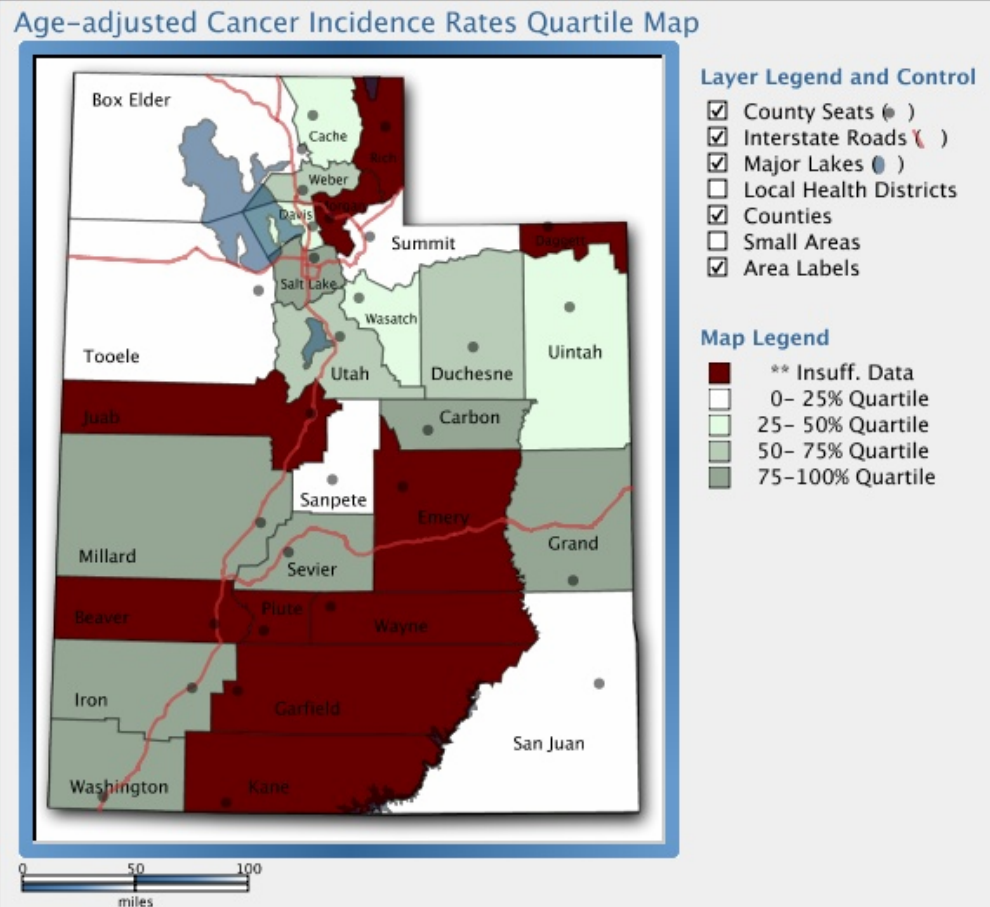


AJCC Stage	Annual Percent Change (APC)	Percent in 1994	Percent in 2003
Stage I	+9.4	7%	15%
Stage II	+7.8 (NS)	1%	7%
Stage III	+14.9%	3%	30%
Stage IV	-3.7	50%	22%
Unstaged	-4.8	40%	25%

5-Year Relative Survival by Stage: 1994-2000



Incidence by County: 1994-2003



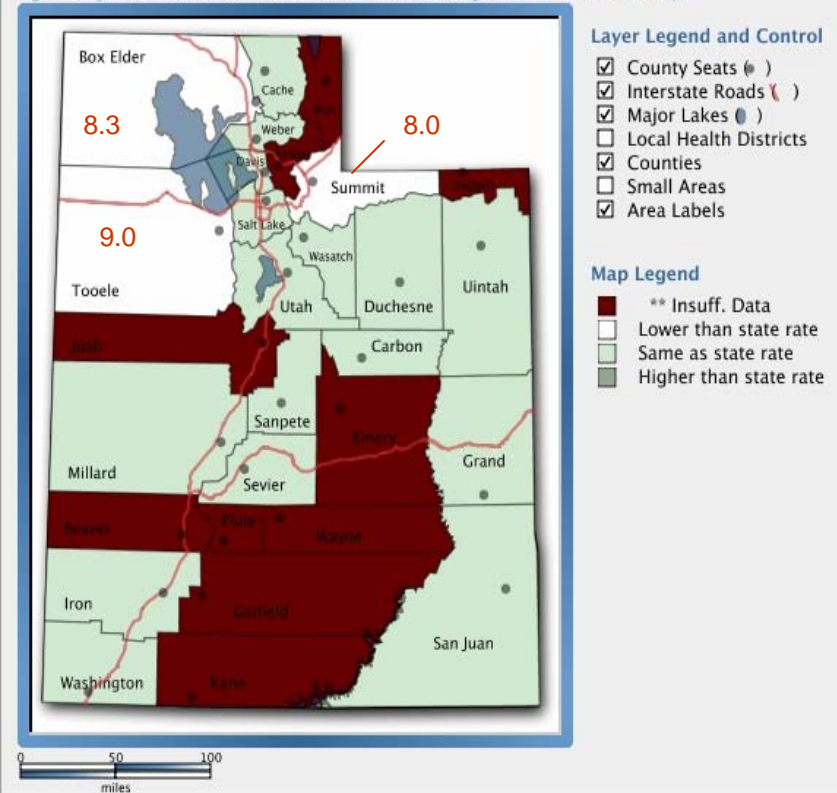
County	Rate per 100,00
All	13.7
75 th Percentile	
Millard	17.2
Sevier	16.6
Washington	15.6
Grand	15.4
Iron	15.3
Carbon	14.9
Salt Lake	14.8

Incidence by County: 1994-2003

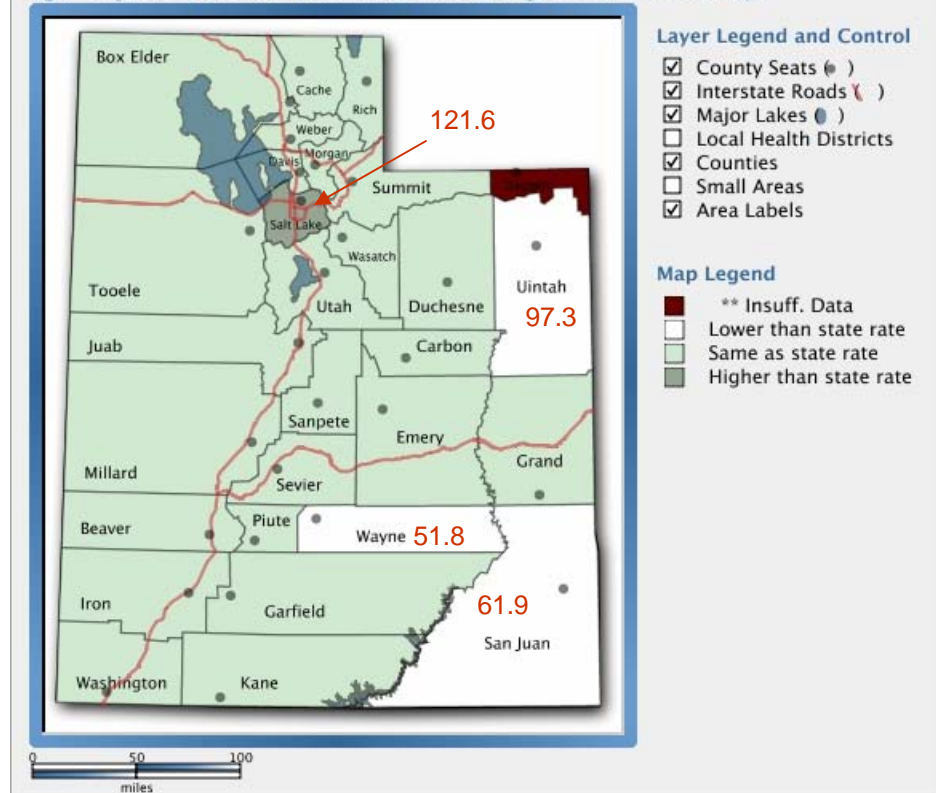
Ovarian 13.7 per 100,000

Breast 116.3 per 100,000

Age-adjusted Cancer Incidence Rates High-Low-Same Map



Age-adjusted Cancer Incidence Rates High-Low-Same Map



Conclusions

- High Mortality + Poor Survival = High Priority
- Lack of substantial change in incidence and mortality for the past 11 years = No significant improvement in diagnosis and treatment
- Women aged 55+ high risk = High surveillance
- Fewer Stage IV & Unstaged + More Stage I/III = Better staging (referrals & surgery to gyns?)
- 27% Stage IV = Poor Screening/Delayed Diagnosis
- Lower than average incidence in some Utah counties = Fewer risk factors or more protective factors? Artifact of cancer reporting or migration?
- Patients are more likely to be seen by an oncologist and ob/gyn if diagnosed in recent years = Positive changes in patterns of care

Acknowledgements

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Thank you.

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